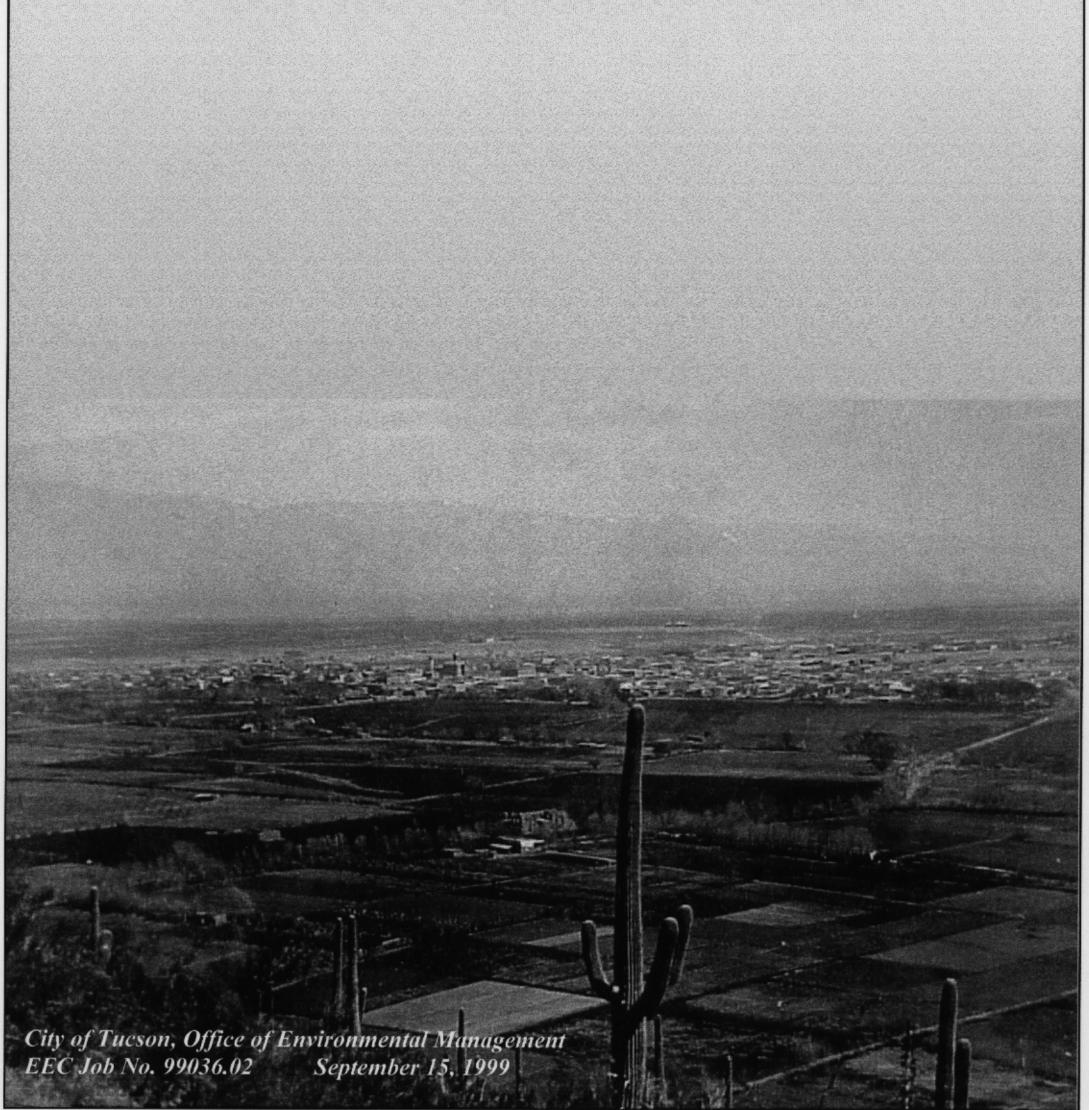


Rio Nuevo South

Phase I Environmental Site Assessment



*City of Tucson, Office of Environmental Management
EEC Job No. 99036.02 September 15, 1999*

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Rio Nuevo South Phase I Environmental Site Assessment
 Engineering and Environmental Consultants, Inc.
 City of Tucson, Office of Environmental Management

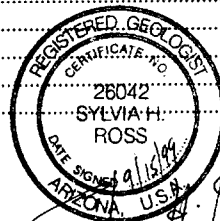


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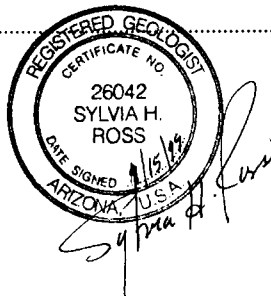


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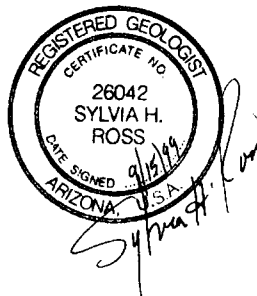


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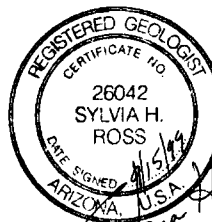
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Limited Phase II Environmental Site Assessment, Soil Borings and Geophysical
Survey, Rio Nuevo South Area, Tucson, AZ

*Rio Nuevo South Phase I Environmental Site Assessment
Engineering and Environmental Consultants, Inc.
City of Tucson, Office of Environmental Management*



SUMMARY

Engineering and Environmental Consultants, Inc. has performed a Phase I Environmental Site Assessment (ESA) in general conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) Standard Practice E 1527-97 for the property identified as Rio Nuevo South and associated lands (Figure A-1, Appendix A). The property evaluated consists of land on the west side of the Santa Cruz River, between Congress Street on the north and Starr Pass Boulevard on the south. The west boundary is irregular, but follows Mission Road north from Starr Pass to the intersection of Mission Lane; goes east along the residential area on Mission Lane, then north at Brickyard Lane along the residential property. The boundary then follows the east edge of the developed residential property until it reaches Congress.

FINDINGS AND RECOMMENDATIONS

For purposes of this evaluation, the property was divided into three geographical areas:

- Land north of Mission Lane, owned by the City of Tucson;
- Land north of Mission Lane, owned by Citizen Auto Stage since 1973; and
- Land south of Mission Lane, owned by the City of Tucson.

The parcels included are shown on Figures A-2 and A-3. Aerial photographs, showing the development of the property from 1953 through 1994, are included in Appendix B.

City Property North Of Mission Lane

This assessment has revealed no evidence of recognized environmental conditions in connection with the property that have not been previously identified or evaluated following the previous Phase I ESA of this property. The only item that is a primary concern is the Rio Nuevo South Landfill (which is a collective term for the Nearmont and Congress Landfills). The boundaries of this landfill area has been defined and any new development must take into account the landfill location and potential for settlement and methane generation. The landfill is only in the southern portion of the area, from about the north boundary of the Citizen Auto Stage property to Mission Lane, as shown on Figure A-4. Groundwater quality in monitoring wells in the northern portion of the property is being periodically tested; EEC recommends that this work continue.

Citizen Auto Stage Property (North Of Mission Lane)

This assessment has revealed no evidence of recognized environmental conditions in connection with the property, with the following exceptions:

- The environmental database (Appendix C) indicates that the property had four underground storage tanks (USTs); three of the USTs, each with 12,000 gallons of capacity, were removed in late 1993. No indication of fuel release was found. The fourth UST, a 550-gallon used oil UST, was removed in November 1998. A soil sample from the beneath the

east end of the tank contained 56,000 mg/Kg of hydrocarbons in the C₁₀ to C₃₂ range, which is above the non-residential soil cleanup level (Arizona Department of Environmental Quality, 1977). The ADEQ was notified of the suspected release. The location now requires a site characterization investigation, in accordance with the current guidance document (ADEQ, 1999). The feeder lines from the building to the used oil UST were not removed because removal would have disrupted operations at the wash rack and within the north portion of the building.

- The USTs were replaced with aboveground storage tanks (ASTs). There is one 10,000-gallon diesel tank and new and used oil tanks north of the north building. Fire Department records on historic tank tightness testing and on general fire prevention inspections indicate no releases.
- The Rio Nuevo South Landfill is beneath much of the property (Figure A-4, Appendix A). The effect of the landfill on the property is not completely known. The east edge of the property is reported to have some subsidence, although there is no quantitative information on the amount.
- Considerations outside of ASTM E 1527-97 include asbestos and lead-based paint (north building only). Amounts and locations of presumed asbestos-containing materials (AMC) are provided in Section 5.0 of this report. No physical testing was completed in order to confirm actual amounts of AMC.

City Property South Of Mission Lane

This assessment has revealed no evidence of recognized environmental conditions in connection with the property, with the exception that the effects of the "A" Mountain, and Mission Landfills, beneath the property are unknown. Methane gas at the perimeters of the landfills are being monitored, as is groundwater quality in a perched aquifer downgradient from the landfills. EEC recommends that this monitoring continue.

DOCUMENTATION

This Phase I ESA was completed on the basis of updating previous Phase I ESAs completed for the area by EEC from 1995 through 1999.¹ The evaluation included review of historic maps and reports, with selected entries in Appendix A; review of aerial photographs (Appendix B); and review of a database of sites regulated by federal and state agencies (Appendix C), lists of registered water wells in the area (Appendix D), and the historic chain-of title (Appendix E).

Background information reviewed include information on soils (Appendix F), published floodplain data (Appendix G), environmental records concerning Citizen Auto Stage property (Appendix H), landfill information for the four landfills under the property (Appendix I), and historic groundwater quality data (Appendix J). The resumes of EEC staff that completed this report are in Appendix K.

¹ A bibliography of source documents, listed alphabetically by author, then date, is in Section 7.0.